

# NEWS



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State of New Jersey  
Department of Labor  
PO Box 110  
Trenton, New Jersey  
08625-0110

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## Notice of Proposed Amendment

**RE: Proposed New Rules: N.J.A.C. 12:100-3A and 7**  
**Proposed Amendments: N.J.A.C. 12:100-4.2, 10.1 through 10.7, 10.9, 10.10,**  
**10.13, 10.16, 17.1 and 17.3**

### **DIVISION OF PUBLIC SAFETY AND OCCUPATIONAL SAFETY AND HEALTH**

**Safety and Health Standards for Public Employees**  
**Adoption of Standards; General Standards; Standard for Hazard**  
**Communication; Standards for Firefighters; Standards and Publications**  
**Referred to in this Chapter**

Attached please find the above-referenced matter which was published in the January 5, 2004 New Jersey Register.

If you have any questions, please contact Frederick S. Cohen, Regulatory Officer at (609) 777-2960.

(a)

# **DIVISION OF PUBLIC SAFETY AND OCCUPATIONAL SAFETY AND HEALTH**

**Safety and Health Standards for Public Employees Adoption of Standards; General Standards; Standard for Hazard Communication; Standards for Firefighters; Standards and Publications Referred to in this Chapter**

**Proposed New Rules: N.J.A.C. 12:100-3A and 7  
Proposed Amendments: N.J.A.C. 12:100-4.2, 10.1 through 10.7, 10.9, 10.10, 10.13, 10.16, 17.1 and 17.3**

Authorized By: Albert G. Kroll, Commissioner, Department of Labor.

Authority: N.J.S.A. 34:6A-25 et seq.

Calendar Reference: See Summary below for explanation of exception to calendar requirement.

Proposal Number: PRN 2004-13.

A public hearing on the proposed new rules and amendments will be held on the following date at the following location:

Thursday, January 29, 2004  
10:00 A.M. to 12:00 noon  
New Jersey Department of Labor  
John Fitch Plaza  
13th Floor Auditorium  
Trenton, New Jersey 08625

Please call the Office of Regulatory Services at (609) 292-7375, if you wish to be included on the list of speakers.

Submit written comments by March 5, 2004 to:

Frederick S. Cohen, Regulatory Officer  
Office of Regulatory Services  
New Jersey Department of Labor  
PO Box 110—13th Floor  
Trenton, New Jersey 08625-0110  
Fax: (609) 292-8246

If you need this document in Braille, large print or audio cassette, contact the Office of Communications at (609) 292-3221 or NJ Relay (TTY) 1-800-852-7899.

The agency proposal follows:

## **Summary**

On January 11, 2001, the New Jersey Public Employees Only State Plan, a State occupational safety and health plan applicable only to public sector

employers and employees of New Jersey and its political subdivisions, received initial approval by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), as a developmental plan under section 18 of the Occupational Safety and Health Act of 1970 and 29 CFR §1956. New Jersey has adopted standards identical to most OSHA health and safety standards and is required to bring all of its standards in line with current OSHA requirements. The State Plan also provides that all future OSHA standards and revisions will be adopted by the State. The proposed new rules and amendments to N.J.A.C. 12:100 bring New Jersey's regulatory requirements and standards into compliance with those mandated by the U.S. Department of Labor, Occupational Safety and Health Administration.

Proposed N.J.A.C. 12:100-3A, incorporates the statutory process at N.J.S.A. 34:6A-30 for adoption of OSHA standards in New Jersey and reflects the temporal Federal criteria for the adoption by New Jersey of all applicable Federal OSHA standards within six months and emergency temporary standards within 30 days of Federal promulgation thereof.

N.J.A.C. 12:100-4, General Standards, has been amended by the deletion of N.J.A.C. 12:100-4.2(a)206. The latter, referencing the adoption by reference of the Federally sanctioned Hazard Communication standards, has now been fully and directly incorporated into the proposed Subchapter 7, Standard for Hazard Communication. The proposed subchapter is as stringent as the Federal standards.

N.J.A.C. 12:100-7, Standard for Hazard Communication, reflects the proposed adoption of the Federal Hazard Communication Standard, 29 CFR §1910.1200, with amendments, and will bring New Jersey's regulatory requirements and standards into compliance with those mandated by the U.S. Department of Labor, Occupational Safety and Health Administration. The purpose of the Hazard Communication Standard is to ensure that the hazards attendant to all chemicals produced or imported are evaluated, and that information concerning those hazards is transmitted to employers and employees alike. The transmittal of that information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training. The Hazard Communication Standard is intended to address comprehensively the issue of evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees. Evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as containers or chemicals being shipped to other workplaces; preparation and distribution of material safety data sheets to employees and downstream employers; and development and implementation of employee training programs regarding hazards of chemicals and protective measures.

Proposed Subchapter 7 differs from the Federal Hazard Communication in the following respects:

At N.J.A.C. 12:100-7.4(c), concerning hazard determination, the reference to the latest edition of the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment," which is incorporated by reference, as amended and supplemented, is amended by adding a reference to the 2003 edition which is the latest edition at the time of proposal. The reference to the latest edition of the National Toxicology Program (NTP) "Annual Report on Carcinogens," which is incorporated by reference, as amended and supplemented, is amended by adding a reference to the 10th edition which is the latest edition at the time of proposal. The reference to the latest edition of the International Agency for Research on Cancer (IARC) "Monographs" is not included in the incorporation by reference, as the Monographs are revised through the addition of new monographs.

The U.S. Occupational Safety and Health, Hazard Communication Standard, Effective Dates will not be adopted because they do not apply the effective dates of the State Standard. In Appendix E, at (4)(C), the definition of the terms "exposure and exposed" as related in this provision will not be adopted because the terms are defined at N.J.A.C. 12:100-7.3.

Minor amendments were made to enhance the Hazard Communication Standard by the addition of amendments which add several key provisions regarding training requirements that were already in effect under the New Jersey Worker and Community Right to Know (RTK) Act. The amendments are proposed to include in the PEOSH Standard provisions that, through a future rulemaking, will be deleted from the RTK rules at N.J.A.C. 8:59. The amendments are:



At N.J.A.C. 12:100-7.3, new definitions are added for the following: Hazardous Substance Fact Sheet (HSFS); Right to Know (RTK); Hazardous Substance List (RTK HSL); RTK Survey; technically qualified person; Workplace Hazardous Substance List; and workplace survey.

At N.J.A.C. 12:100-7.8(a), employers are required to provide refresher training every two years and to provide training during working hours and at no cost to employees.

At N.J.A.C. 12:100-7.8(b), employers are required to inform employees of the location and availability of Hazardous Substance Fact Sheets, the RTK Survey, and the RTK Hazardous Substance List.

At N.J.A.C. 12:100-7.8(c), employers are required to provide information about the applicable provisions of the RTK Act.

At N.J.A.C. 12:100-7.8(d), employers are required to provide a copy of the RTK brochure.

At N.J.A.C. 12:100-7.8(e), employers are required to provide a "technically qualified person" to conduct training.

At N.J.A.C. 12:100-7.8(f), employers are required to provide a description of the items to be included in the training records.

At N.J.A.C. 12:100-7.8(g), employers are required to maintain training records.

At N.J.A.C. 12:100-7.8(h), employers are required to make available all training records.

At N.J.A.C. 12:100-7.8(i), employers are required to assure that training materials are appropriate in content and vocabulary to educational level, literacy, and language of employees.

In order to prevent confusion among the regulated community about which agency is responsible for enforcing the overlapping provisions of the Worker and Community Right to Know Act and the PEOSH Hazard Communication Standard, the Department of Health and Senior Services will be amending its Right to Know rules, N.J.A.C. 8:59, in order to delete provisions dealing with education and training, since the Office of Public Employees Occupational Safety and Health (PEOSH) will be enforcing education and training requirements under the Hazard Communication Standard.

Amendments are also proposed to N.J.A.C. 12:100-10, Standards for Firefighters. New Jersey is required under its State Plan agreement with the U.S. Department of Labor, Occupational Safety and Health Administration to have its Standards for Firefighters be at least as effective as 29 CFR §1910.156 Fire Brigades. The subchapter has been amended to comply with that requirement.

N.J.A.C. 12:100-10.1, Scope; standards information. This section has been amended to include the addition of requirements for the organization, training and personal protective equipment of fire service organizations whenever an employer establishes them.

N.J.A.C. 12:100-10.2, Definitions. This section has been amended to remove the definitions for both volunteer and career firefighters. It has been determined that both volunteer and career firefighters perform essentially the same roles in structural firefighting and, therefore, there is no need for the distinction. For the same reasons, the definitions of the terms "career fire service" and "volunteer fire service" have been deleted. The definition of "enclosed structure" has been amended to expand the definition so that when a structure with a roof or ceiling and two sides that are not necessarily adjacent are present, firefighters would be afforded the same protection as a structure with adjacent sides.

N.J.A.C. 12:100-10.3, Organization. This section is amended to add a new section (c) concerning training and education establishing minimum qualifications for structural firefighters. The language contained in paragraphs (c)1 through 4 is taken verbatim from the Federal Fire Brigade Standard. Paragraph (c)5 contains new language regarding specialty training and paragraph (c)6 contains new language which references the Standard for Hazard Communication with amendments to clarify the employee's responsibilities to the fire service.

N.J.A.C. 12:100-10.4, Personnel; limitations on ability to perform. A new paragraph (a)1 has been added requiring that prior to appointment as a structural firefighter, all individuals shall have successfully passed a medical evaluation meeting the Medical Evaluation Protocol required under the revised Respiratory Protection Standard, 29 CFR §1910.134.

N.J.A.C. 12:100-10.5, Protective clothing. Subsection (b) has been amended to require that firefighters wear protective clothing while paragraph (c)3 has been amended to remove the word "career" before "firefighter." As amended, paragraph (c)3 requires firefighters to wear foot, leg and body protective clothing complying with Subchapter 10, paragraph (c)4, allowing volunteer firefighters to wear protective clothing complying with previous OSHA standards until such becomes unserviceable or replaced, is deleted.

N.J.A.C. 12:100-10.6, Protective clothing; foot and leg protection. This section has been amended to remove the word "career" before "firefighters" and paragraph (a)2 dealing with replacement equipment for volunteers has been deleted.

N.J.A.C. 12:100-10.7, Protective clothing; body protection. Subsection (a) has been amended to replace "career firefighters" and "volunteer firefighters" with "all firefighters." Subsection (b) has been amended to state that if the employer issues or requires the wearing of uniforms for volunteer firefighters, the uniform must comply with subsection (c), which sets forth requirements for station/work apparel for career firefighters.

N.J.A.C. 12:100-10.9, Protective clothing; head, eye and face protection. Subsection (b) has been amended by adding the word "goggles" as one of the enumerated protective gear to be utilized by firefighters. Paragraph (c)1 concerning full protective hoods has been amended by removing a grandfather date of December 7, 1999.

N.J.A.C. 12:100-10.10, Respiratory protection devices. Paragraph (d)1 has been eliminated. This paragraph was eliminated because positive-pressure breathing apparatus with a rated service life of more than two hours that are certified by the National Institute of Occupational Safety and Health are available. This makes paragraph (d)1 obsolete. Subsection (e) has been revised to update the references for compressed air cylinder used with self-contained breathing apparatus. National Institute for Occupational Safety and Health regulations at 42 CFR part 84 have replaced 30 CFR part 11.

N.J.A.C. 12:100-10.13, Hearing protection. Subsection (d) provides that 29 CFR 1910.95, Occupational Noise Exposure, incorporated at N.J.A.C. 12:100-4.2(a)6, Subpart G, Occupational Health and Environmental Control, is applicable to N.J.A.C. 12:100-10. Because Subpart G, Occupational Health and Environmental Control, includes 29 CFR 1910.95, the specific Subpart G reference is deleted. In addition, the specific reference to N.J.A.C. 12:100-4.2(a)6 is revised to reflect N.J.A.C. 12:100-4 in its entirety.

N.J.A.C. 12:100-10.16, Maintenance of firefighter equipment. Subsection (a) has been amended to require maintenance and inspection at least annually. Subsection (b) has been amended by requiring that annual inspections of apparatus must be in accordance with applicable National Fire Protection Association (NFPA) recommendation for that type of apparatus.

N.J.A.C. 12:100-17.1, Documents referred to by reference. This section has been amended to reflect the deletion of ANSI Z9.2-1979, Design and Operation of Local Exhaust Systems, which was deleted from the chapter due to prior regulatory requirements. Reference to the American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment (2003 Edition); the International Agency for Research on Cancer (IARC) Monographs; and the National Toxicology Program (NTP) Annual Report on Carcinogens (10th Edition) are added because they are referenced in N.J.A.C. 12:100-7, Standard for Hazard Communication.

N.J.A.C. 12:100-17.3, Availability of documents from issuing organization. This subsection has been amended to reflect an address change of the American National Standards Institute. Addresses for the American Conference of Governmental Industrial Hygienists, the International Agency for Research on Cancer and the National Toxicology Program are added because they are referenced in N.J.A.C. 12:100-7, Standard for Hazard Communication.

Because the Department has provided a 60-day comment period on this notice of proposal, this notice is exempted from the rulemaking calendar requirements pursuant to N.J.A.C. 1:30-3.3(a)5.

#### Social Impact

The proposed new rules and amendments directly impact all public employers and employees within the jurisdiction of N.J.S.A. 34:6A-25 et seq., by affording them the same level of protection from recognized occupational safety and health hazards as is afforded to all private sector employees in the State of New Jersey. The proposed amendments make New Jersey's Public Employees' Occupational Safety and Health program at least as stringent as that of the U.S. Department of Labor, Occupational Safety and Health Administration program under the Occupational Safety and Health Act of 1970. Thus, they will have a positive affect on those persons to whom these rules apply by affording them a greater degree of bodily and structural security attendant to conformance with OSHA, including the firefighters who in turn protect our State's citizenry.

#### Economic Impact

The proposed new rules and amendments will produce a minimal economic impact. Specifically, the majority of the new rules and amendments are technical in nature and bring New Jersey, and those within the regulated community, into compliance with the Federal mandate to be at least as



effective as the Federal Occupational Safety and Health Standards in question. Moreover, it is not anticipated that the adoption of the Hazard Communication Standard with amendments will have a significant economic impact on public employers or public employees. The amendments regarding the training requirements replace the training requirements under the New Jersey Worker and Community Right to Know Act. The Department of Health and Senior Services will be amending the Right to Know rules, N.J.A.C. 8-59, to delete provisions dealing with education and training. There may be some additional cost to public employers to comply with all the provisions of the Hazard Communication Standard, however the cost does not result from a new State mandate but rather because the Federal government requires that the Standard be adopted. There may be economic benefit to private consultants and consulting agencies that may be hired by public employers to bring them into compliance with the adoption of the Hazard Communication Standard.

In addition, the amended Standards for Firefighters no longer differentiate between career and volunteer firefighters. This could result in volunteer fire companies having to upgrade their personal protective equipment to meet the requirements of Subchapter 10 and to have volunteer firefighters ensure that they respond to fires with appropriate fire-resistant personal clothing in lieu of station-wear. The amended Standards also delineate the minimum training required for firefighters in the State of New Jersey. Training for firefighters is available in most counties at a training facility for police, fire or rescue or combination thereof. The amended Standards require that the training provided is the equivalent to those contained in 29 CFR §1910.156(c)3 plus new language regarding specialty training. Thus, to the degree that mandated training standards result in minimal increased costs with regard to volunteer fire companies, those costs will have to be met by the local municipalities.

#### Federal Standards Statement

Federal standards affected by these standards are contained in 29 CFR §1910, Occupational Safety and Health Standards. New Jersey's Safety and Health Standards for Public Employees are being amended to bring them into compliance with the Federal standards as required by New Jersey's Developmental Plan under its initial approval as a State Plan for Public Employees Only by the United States Department of Labor, Occupational Safety and Health Administration.

#### Jobs Impact

The Department does not anticipate any creation or loss of jobs as a result of the proposed new rules and amendments.

#### Agriculture Industry Impact

The Department does not anticipate any impact upon the agriculture industry as a result of the proposed new rules and amendments.

#### Regulatory Flexibility Analysis

In accordance with the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has determined that only public employers and employees will be affected by the proposed new rules and amendments. However, the Department has determined that the proposed new rules and amendments will not impose additional reporting or recordkeeping requirements on public employers or employees and will have no impact on private businesses at all. The reporting, recordkeeping and other compliance requirements imposed on public employers and employees are the same as previously required.

#### Smart Growth Impact

The proposed new rules and amendments will not have any impact on the achievement of smart growth or the implementation of the State Development and Redevelopment Plan.

Full text of the proposal follows (additions indicated in boldface thus; deletions indicated in brackets [thus]):

### SUBCHAPTER 3A. ADOPTION OF STANDARDS

#### 12:100-3A.1 Adoption of standards in compliance with applicable Federal standards

The Commissioner shall provide for the adoption of all applicable occupational health and safety standards, amendments or changes adopted or recognized by the Secretary under the authority of the Occupational Safety and Health Act of 1970. Whenever the United States Secretary of Labor adopts a standard pursuant to the provisions of the Occupational Safety and Health Act of 1970 (29 U.S.C. §§651 et seq.), the Commissioner shall publish that Federal

standard within six months of Federal adoption in the New Jersey Register in accordance with the provisions of N.J.S.A. 52:14B-5 and, notwithstanding the provisions of N.J.S.A. 52:14B-4, that Federal standard shall be deemed to be duly adopted as a State rule upon its publication by the Commissioner.

#### 12:100-3A.2 Adoption of standards more stringent than Federal standards

(a) The Commissioner shall not adopt any standard within the scope of the State Uniform Construction Code adopted pursuant to N.J.S.A. 52:27D-119 et seq., or the Uniform Fire Safety Code adopted pursuant to N.J.S.A. 52:27D-192 et seq., unless the standard is one adopted pursuant to N.J.A.C. 12:100-4. If the Commissioner of Community Affairs determines that a building or structural safety standard adopted by the Commissioner pursuant to N.J.A.C. 12:100-4 is more stringent than the applicable standards found in the State Uniform Construction Code or the Uniform Fire Safety Code, he or she shall adopt a rule incorporating the more stringent standard. If the Commissioner of Community Affairs determines that there is a difference between a provision of any new or existing standard adopted pursuant to N.J.A.C. 12:100-4 and a provision of the Uniform Construction Code or the Uniform Fire Safety Code, and he or she determines that the provision of the applicable code is as effective as the provision of the standard, he or she shall prepare and submit to the Commissioner an application for submission to the Secretary of Labor seeking the approval of that provision of the Uniform Construction Code or the Uniform Fire Safety Code as being as effective as the provision of the standard and the approval of the incorporation of the code provision into the State Plan.

(b) Where no Federal standards are applicable or where standards more stringent than the Federal standards are deemed advisable, the Commissioner shall, in consultation with the Commissioner of Health and Senior Services and the Commissioner of Community Affairs, and with the advice of the Public Employees' Occupational Safety and Health Advisory Board, provide for the development of State standards as may be necessary.

#### 12:100-3A.3 Adoption of emergency temporary standards

The Commissioner shall provide for the adoption of all emergency temporary standards, amendments or changes adopted or recognized by the United States Secretary of Labor under the authority of the Occupational Safety and Health Act of 1970 (29 U.S.C. §§651 et seq.). The Commissioner shall publish that Federal standard within 30 days of Federal adoption in the New Jersey Register in accordance with the provisions of N.J.S.A. 52:14B-5 and, notwithstanding the provisions of N.J.S.A. 52:14B-4, that Federal standard shall be deemed to be duly adopted as a State regulation upon its publication by the Commissioner.

### SUBCHAPTER 4. GENERAL STANDARDS

#### 12:100-4.2 Adoption by reference

(a) The standards contained in 29 CFR Part 1910, General Industry Standards, with amendments published in the Federal Register through April 23, 1998 and any subsequent amendments thereto, with certain exemptions noted in (b) below, are adopted upon publication in the New Jersey Register and are incorporated herein by reference as occupational safety and health standards for the protection of public employees engaged in general operations and shall include:

1.-19. (No change.)

20. Subpart Z—Toxic and Hazardous Substances.

[i. The standards contained in Subpart Z of 29 CFR Part 1910 are adopted except that the following health standard is not adopted: 1910.1200. Hazard Communication.]

(b) (No change.)



## SUBCHAPTER 7. STANDARD FOR HAZARD COMMUNICATION

## 12:100-7.1 Purpose

(a) The purpose of this subchapter is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training.

1. This occupational safety and health standard is intended to address comprehensively the issue of evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legal requirements of a state, or political subdivision of this State, pertaining to this subject. Evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as of containers of chemicals being shipped to other workplaces; preparation and distribution of material safety data sheets to employees and downstream employers, and development and implementation of employee training programs regarding hazards of chemicals and protective measures.

## 12:100-7.2 Scope and application

(a) This subchapter requires chemical manufacturers or importers to assess the hazards of chemicals which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training. In addition, this subchapter requires distributors to transmit the required information to employers. Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers. Appendix E of this subchapter, incorporated herein by reference, is a general guide for such employers to help them determine their compliance obligations under these rules.

(b) This subchapter applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

(c) This subchapter applies to laboratories only as follows:

1. Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

2. Employers shall maintain any material safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each work shift to laboratory employees when they are in their work areas;

3. Employees shall ensure that laboratory employees are provided information and training in accordance with N.J.A.C. 12:100-7.8, except for the location and availability of the written hazard communication program under N.J.A.C. 12:100-7.8(b)(3); and

4. Laboratory employers that ship hazardous chemicals are considered to be either a chemical manufacturer or a distributor under this rule. Thus, they must ensure that any containers of hazardous chemicals leaving the laboratory are labeled in accordance with N.J.A.C. 12:100-7.6(a), and that a material safety data sheet is provided to distributors and other employers in accordance with N.J.A.C. 12:100-7.7(f) and (g).

(d) In operations where employees only handle chemicals in sealed containers, which are not opened under normal conditions of use (such as are found in marine cargo handling, warehousing, or retail sales), this subchapter applies to these operations only as follows:

1. Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

2. Employers shall maintain copies of any material safety data sheets that are received with incoming shipments of the sealed containers of hazardous chemicals or shall obtain a material safety data sheet as soon as possible for sealed containers of hazardous chemicals received without a material safety data sheet if an employee requests the material data sheet and shall ensure that the material safety data sheets are readily accessible during each work shift to employees when they are in their work area(s); and

3. Employers shall ensure that employees are provided with information and training in accordance with N.J.A.C. 12:100-7.8 (except for the location and availability of the written hazard communication program under N.J.A.C. 12:100-7.8(b)(3)), to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.

(e) This subchapter does not require labeling of the following chemicals:

1. Any pesticides as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§136 et seq., when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

2. Any chemical substance or mixture as such terms are defined in the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq., when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

3. Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device or product, including materials intended for use as ingredients in such products (for example, flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. §§301 et seq., or the Virus-Serum-Toxin Act of 1913, 21 U.S.C. §§151 et seq., and regulations issued under those Acts, when they are subject to the labeling requirements under those Acts by either the Food and Drug Administration or the Department of Agriculture;

4. Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, as such terms are defined in the Federal Alcohol Administration Act, 27 U.S.C. §§201 et seq., and regulations issued under that Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Bureau of Alcohol, Tobacco, and Firearms;

5. Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act, 15 U.S.C. §§2051 et seq., and Federal Hazardous Substances Act, 15 U.S.C. §§1261 et seq., respectively, when subject to a consumer product safety standard or labeling requirement of those Acts, or regulations issued under those Acts by the Consumer Product Safety Commission; and

6. Agricultural or vegetable seed treated with pesticides and labeled in accordance with the Federal Seed Act, 7 U.S.C. §§1551 et seq., and the labeling regulations issued under that Act by the Department of Agriculture.

(f) This subchapter does not apply to:

1. Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. §§6901 et seq., when subject to regulations issued under that Act by the Environmental Protection Agency;

2. Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§9601 et seq., when the hazardous substance is the focus of remedial or removal actions being conducted under CERCLA in accordance with the Environmental Protection Agency regulations;

3. Tobacco or tobacco products;

4. Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility. Wood or wood products, which



have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted;

5. Articles, as the term is defined in N.J.A.C. 12:100-7.3;

6. Food or alcoholic beverages which are sold, used, or prepared in a retail establishment such as a grocery store, restaurant, or drinking place, and foods intended for personal consumption by employees while in the workplace;

7. Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. §§301 et seq., when it is in solid, final form for direct administration to the patient (for example, tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (for example, over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (for example, first aid supplies);

8. Cosmetics, which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;

9. Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act, 15 U.S.C. §§2051 et seq., and Federal Hazardous Substances Act, 15 U.S.C. §§1261 et seq., respectively, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;

10. Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;

11. Ionizing and non-ionizing radiation; and

12. Biological hazards.

#### 12:100-7.3 Definitions

The following words and terms, as used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise:

"Article" means a manufactured item other than a fluid or particle:

1. Which is formed to a specific shape or design during manufacture;

2. Which has end use function(s) dependent in whole or in part upon its shape or design during end use; and

3. Which under normal conditions of use does not release more than very small quantities, for example, minute or trace amounts of a hazardous chemical (as determined under N.J.A.C. 12:100-7.4), and does not pose a physical hazard or health risk to employees.

"Chemical" means any element, chemical compound or mixture of elements and/or compounds.

"Chemical manufacturer" means an employer with a workplace where chemical(s) are produced for use or distribution.

"Chemical name" means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

"Combustible liquid" means any liquid having a flashpoint at or above 100 degrees Fahrenheit (37.8 degrees Celsius), but below 200 degrees Fahrenheit (93.3 degrees Celsius), except any mixture having components with flashpoints of 200 degrees Fahrenheit (93.3 degrees Celsius), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

"Commercial account" means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

"Common name" means any designation or identification such as code name, code number, trade name and brand name or generic name used to identify a chemical other than by its chemical name.

"Compressed gas" means:

1. A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 degrees Fahrenheit (21.1 degrees Celsius);

2. A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 degrees Fahrenheit (54.4 degrees Celsius) regardless of the pressure at 70 degrees Fahrenheit (21.1 degrees Celsius); or

3. A liquid having a vapor pressure exceeding 40 psi at 100 degrees Fahrenheit (37.8 degrees Celsius) as determined by ASTM D-323-72.

"Container" means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

"Designated representative" means any individual or organization to which an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

"Director" means the Director, National Institute for Occupational Safety and Health, United States Department of Health and Human Services, or designee.

"Distributor" means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

"Employee" means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in nonroutine, isolated instances are not covered.

"Explosive" means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

"Exposure" or "exposed" means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (for example, accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (for example, inhalation, ingestion, skin contact or absorption).

"Flammable" means a chemical that falls into one of the following categories:

1. "Aerosol, flammable" means an aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;

2. "Gas, flammable" means a gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of 13 percent by volume or less; or a gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than 12 percent by volume, regardless of the lower limit;

3. "Liquid, flammable" means any liquid having a flashpoint below 100 degrees Fahrenheit (37.8 degrees Celsius), except any mixture having components with flashpoints of 100 degrees Fahrenheit (37.8 degrees Celsius) or higher, the total of which make up 99 percent or more of the total volume of the mixture;

4. "Solid, flammable" means a solid, other than a blasting agent or explosive as defined in 29 CFR 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and, when ignited, burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.



"Flashpoint" means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows:

1. Tagliabue Closed Tester (see American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24-1979 (ASTM D 56-79)) for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100 degrees Fahrenheit (37.8 degrees Celsius), that do not contain suspended solids and do not have a tendency to form a surface film under test;

2. Pensky-Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7-1979 (ASTM D 93-79)) for liquids with a viscosity equal to or greater than 45 SUS at 100 degrees Fahrenheit (37.8 degrees Celsius), or that contain suspended solids, or that have a tendency to form a surface film under test; or

3. Setaflash Closed Tester (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78)).

Organic peroxides, which undergo auto-accelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.

"Foreseeable emergency" means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which could result in an uncontrolled release of a hazardous chemical into the workplace.

"Hazardous chemical" means any chemical which is a physical hazard or a health hazard.

"Hazardous Substance Fact Sheet" means a written document prepared by the New Jersey Department of Health and Senior Services for each hazardous substance on the Right to Know Hazardous Substance List except for generic categories, and transmitted by the Department to public employers, county health departments, county clerks, designated county lead agencies and the public pursuant to the provisions of the Worker and Community Right to Know Act, N.J.S.A. 34:5A-1 et seq.

"Hazard warning" means any words, pictures, symbols, or combination thereof, appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See the definitions for "physical hazard" and "health hazard" to determine the hazards which must be covered.)

"Health hazard" means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals, which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A of this subchapter, incorporated herein by reference, provides further definitions and explanations of the scope of health hazards covered by this subchapter, and Appendix B of this subchapter, incorporated herein by reference, describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard.

"Identity" means any chemical or common name, which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.

"Immediate use" means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

"Importer" means the first business with employees within the Customs Territory of the United States, which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

"Label" means any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

"Material safety data sheet (MSDS)" means written or printed material concerning a hazardous chemical, which is prepared in accordance with N.J.A.C. 12:100-7.7.

"Mixture" means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

"Organic peroxide" means an organic compound that contains the bivalent -O-O-structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

"Oxidizer" means a chemical other than a blasting agent or explosive as defined in 29 CFR 1910.109(s), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

"Physical hazard" means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

"Produce" means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

"Pyrophoric" means a chemical that will ignite spontaneously in air at a temperature of 130 degrees Fahrenheit (54.4 degrees Celsius) or below.

"Responsible party" means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

"Right to Know Hazardous Substance List" includes the workplace hazardous substance list and the environmental hazardous substance list.

"Right to Know Survey" includes the workplace survey and environmental survey.

"Specific chemical identity" means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

"Technically qualified person" means:

1. For training purposes, a person who is a registered nurse, a certified safety professional, or a certified industrial hygienist, or has a bachelor's degree or higher in industrial hygiene, environmental science, health education, chemistry, or a related field, and understands the health risks associated with exposure to hazardous substances;

2. For training purposes, a person who has completed at least 30 hours of hazardous materials training offered by the New Jersey State Safety Council, the New Jersey Department of Health and Senior Services, an accredited public or private educational institution, labor union, trade association, private organization or government agency, and understands the health risks associated with exposure to hazardous substances, and has at least one year of experience handling hazardous substances or working with hazardous substances. The 30-hour requirement may be met by the combination of one or more hazardous materials training courses; or

3. For purposes of teaching the recruit firefighting training course established by the New Jersey Department of Community Affairs, a person who has fulfilled the requirements of Firefighter Instructor Level I as certified by the Department of Community Affairs.

"Trade secret" means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. Appendix D of this subchapter, incorporated herein by reference, sets out the criteria to be used in evaluating trade secrets.

"Unstable (reactive)" means a chemical, which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

"Use" means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

"Water-reactive" means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.



"Work area" means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

"Workplace" means an establishment, job site, or project, at one geographical location containing one or more work areas.

"Workplace Hazardous Substance List" means the list of hazardous substances developed by the New Jersey Department of Health and Senior Services pursuant to N.J.S.A. 34:5A-5. The Workplace Hazardous Substance List is incorporated into the Right to Know Hazardous Substance List.

"Workplace survey" means a written document, prepared by the New Jersey Department of Health and Senior Services and completed by a public employer pursuant to the Worker and Community Right to Know Act, on which the employer shall report each hazardous substance on the Right to Know Hazardous Substance List present at its facility. The workplace survey is incorporated into the Right to Know Survey.

#### 12:100-7.4 Hazard determination

(a) Chemical manufacturers and importers shall evaluate chemicals produced in their workplaces or imported by them to determine if they are hazardous. Employers are not required to evaluate chemicals unless they choose not to rely on the evaluation performed by the chemical manufacturer or importer for the chemical to satisfy this requirement.

(b) Chemical manufacturers, importers or employers evaluating chemicals shall identify and consider the available scientific evidence concerning such hazards. For health hazards, evidence which is statistically significant and which is based on at least one positive study conducted in accordance with established scientific principles is considered to be sufficient to establish a hazardous effect if the results of the study meet the definitions of health hazards in this section. Appendix A shall be consulted for the scope of health hazards covered, and Appendix B shall be consulted for the criteria to be followed with respect to the completeness of the evaluation, and the data to be reported.

(c) The chemical manufacturer, importer or employer evaluating chemicals shall treat the following sources as establishing that the chemicals listed in them are hazardous:

1. 29 CFR §1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA); or

2. "Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment," American Conference of Governmental Industrial Hygienists (ACGIH) (2003 Edition). The chemical manufacturer, importer, or employer is still responsible for evaluating the hazards associated with the chemicals in these source lists in accordance with the requirements of this standard.

(d) Chemical manufacturers, importers and employers evaluating chemicals shall treat the following sources as establishing that a chemical is a carcinogen or potential carcinogen for hazard communication purposes: National Toxicology Program (NTP), "Annual Report on Carcinogens" (10th Edition); International Agency for Research on Cancer (IARC) "Monographs"; or 29 CFR §1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration.

1. The "Registry of Toxic Effects of Chemical Substances" published by the National Institute for Occupational Safety and Health indicates whether a chemical has been found by NTP or IARC to be a potential carcinogen.

(e) The chemical manufacturer, importer or employer shall determine the hazards of mixtures of chemicals as follows:

1. If a mixture has been tested as a whole to determine its hazards, the results of such testing shall be used to determine whether the mixture is hazardous;

2. If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it contains a component in concentrations of

0.1 percent or greater which is considered to be a carcinogen under N.J.A.C. 12:100-7.4(d);

3. If a mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the chemical manufacturer, importer, or employer may use whatever scientifically valid data is available to evaluate the physical hazard potential of the mixture; and

4. If the chemical manufacturer, importer, or employer has evidence to indicate that a component present in the mixture in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees in those concentrations, the mixture shall be assumed to present the same hazard.

(f) Chemical manufacturers, importers, or employers evaluating chemicals shall describe in writing the procedures they use to determine the hazards of the chemical they evaluate. The written procedures are to be made available, upon request, to employees, their designated representatives, the Commissioner of Labor and/or Commissioner of Health and Senior Services and the Director. The written description may be incorporated into the written hazard communication program required under N.J.A.C. 12:100-7.5.

#### 12:100-7.5 Written hazard communication program

(a) Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in N.J.A.C. 12:100-7.6, 7.7 and 7.8 for labels and other forms of warning, material safety data sheets, and employee information and training will be met, and which also includes the following:

1. A list of the hazardous chemicals known to be present using an identity that is referenced on the appropriate material safety data sheet (the list may be compiled for the workplace as a whole or for individual work areas); and

2. The methods the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.

(b) Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally insure that the hazard communication programs developed and implemented under N.J.A.C. 12:100-7.5 include the following:

1. The methods the employer will use to provide the other employer(s) on-site access to material safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;

2. The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and

3. The methods the employer will use to conform the other employer(s) of the labeling system used in the workplace.

(c) The employer may rely on an existing hazard communication program to comply with these requirements, provided that it meets the criteria established in this section.

(d) The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Commission of Labor and/or the Commissioner of Health and Senior Services and the Director, in accordance with the requirements of 29 CFR §1910.1020(e).

(e) Where employees must travel between workplaces during a work shift, that is, their work is carried out at more than one geographical location, the written hazard communication program may be kept at the primary workplace facility.



## 12:100-7.6 Labels and other forms of warning

(a) The chemical manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked with the following information:

1. The identity of the hazardous chemical(s);
2. Appropriate hazard warnings; and
3. The name and address of the chemical manufacturer, importer, or other responsible party.

(b) For solid metal (such as a steel beam or a metal casting), solid wood, or plastic items that are not exempted as articles due to their downstream use, or shipments of whole grain, the required label may be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes.

1. The label may be transmitted with the initial shipment itself, or with the material safety data sheet that is to be provided prior to, or at the time of, the first shipment.

2. This exception to requiring labels on every container of hazardous chemicals is only for the solid material itself, and does not apply to hazardous chemicals used in conjunction with, or known to be present with, the material and to which employees handling the items in transit may be exposed (for example, cutting fluids or pesticides in grains).

(c) Chemical manufacturers, importers, or distributors shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in accordance with this section in a manner which does not conflict with the requirements of the Hazardous Materials Transportation Act, 49 U.S.C. §§1801 et seq., and regulations issued under that Act by the Department of Transportation.

(d) If the hazardous chemical is regulated by U.S. Occupational Safety and Health Administration in a substance-specific health standard, the chemical manufacturer, importer, distributor or employer shall ensure that the labels or other forms of warning used are in accordance with the requirements of that standard.

(e) Except as provided in N.J.A.C. 12:100-7.6(f) and 7.8(g), the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with the following information:

1. The identity of the hazardous chemical(s) contained therein; and
2. Appropriate hazard warnings, or alternatively, words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

(f) The employer may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by N.J.A.C. 12:100-7.6(e) to be on a label. The written materials shall be readily accessible to the employees in their work area throughout each work shift.

(g) The employer is not required to label portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer. For purposes of this section, drugs which are dispensed by a pharmacy to a health care provider for direct administration to a patient are exempted from labeling.

(h) The employer shall not remove or deface existing labels on incoming containers of hazardous chemicals, unless the container is immediately marked with the required information.

(i) The employer shall ensure that labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employers having employees who speak other languages

may add the information in their language to the material presented, as long as the information is presented in English as well.

(j) The chemical manufacturer, importer, distributor or employer need not affix new labels to comply with this section if existing labels already convey the required information.

(k) Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall revise the labels for the chemical within three months of becoming aware of the new information. Labels on containers of hazardous chemicals shipped after that time shall contain the new information. If the chemical is not currently produced or imported, the chemical manufacturer, importer, distributor, or employer shall add the information to the label before the chemical is shipped or introduced into the workplace again.

## 12:100-7.7 Material safety data sheets

(a) Chemical manufacturers and importers shall obtain or develop a material safety data sheet for each hazardous chemical they produce or import. Employers shall have a material safety data sheet in the workplace for each hazardous chemical, which they use.

(b) Each material safety data sheet shall be in English (although the employer may maintain copies in other languages as well), and shall contain at least the following information:

1. The identity used on the label, and, except as provided for in N.J.A.C. 12:100-7.9 concerning trade secrets:

- i. If the hazardous chemical is a single substance, its chemical and common name(s);
- ii. If the hazardous chemical is a mixture which has been tested as a whole to determine its hazards, the chemical and common name(s) of the ingredients which contribute to these known hazards, and the common name(s) of the mixture itself; or
- iii. If the hazardous chemical is a mixture which has not been tested as a whole:

(1) The chemical and common name(s) of all ingredients, which have been determined to be health hazards, and which comprise one percent or greater of the composition, except that chemicals identified as carcinogens under N.J.A.C. 12:100-7.4 shall be listed if the concentrations are 0.1 percent or greater;

(2) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise less than one percent (0.1 percent for carcinogens) of the mixture, if there is evidence that the ingredient(s) could be released from the mixture in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees; and

(3) The chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture;

2. The physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point);

3. The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity;

4. The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical;

5. The primary route(s) of entry;

6. The OSHA permissible exposure limit, ACGIH Threshold Limit Value, and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the material safety data sheet, where available;

7. Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Annual Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or by OSHA;

8. Any generally applicable precautions for safe handling and use, which are known to the chemical manufacturer, importer or employer preparing the material safety data sheet, including



appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks;

9. Any generally applicable control measures, which are known to the chemical manufacturer, importer or employer preparing the material safety data sheet, such as appropriate engineering controls, work practices, or personal protective equipment;

10. Emergency and first aid procedures;

11. The date of preparation of the material safety data sheet or the last change to it; and

12. The name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party preparing or distributing the material safety data sheet, who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

(c) If no relevant information is found for any given category on the material safety data sheet, the chemical manufacturer, importer or employer preparing the material safety data sheet shall mark it to indicate that no applicable information was found.

(d) Where complex mixtures have similar hazards and contents (that is, the chemical ingredients are essentially the same, but the specific composition varies from mixture to mixture), the chemical manufacturer, importer or employer may prepare one material safety data sheet to apply to all of these similar mixtures.

(e) The chemical manufacturer, importer or employer preparing the material safety data sheet shall ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination. If the chemical manufacturer, importer or employer preparing the material safety data sheet becomes newly aware of any significant information regarding the hazards of a chemical, or ways to protect against the hazards, this new information shall be added to the material safety data sheet within three months. If the chemical is not currently being produced or imported the chemical manufacturer or importer shall add the information to the material safety data sheet before the chemical is introduced into the workplace again.

(f) Chemical manufacturers or importers shall ensure that distributors and employers are provided an appropriate material safety data sheet with their initial shipment, and with the first shipment after a material safety data sheet is updated.

1. The chemical manufacturer or importer shall either provide material safety data sheets with the shipped containers or send them to the distributor or employer prior to or at the time of the shipment.

2. If the material safety data sheet is not provided with a shipment that has been labeled as a hazardous chemical, the distributor or employer shall obtain one from the chemical manufacturer or importer as soon as possible.

3. The chemical manufacturer or importer shall also provide distributors or employers with a material safety data sheet upon request.

(g) Distributors shall ensure that material safety data sheets, and updated information, are provided to other distributors and employers with their initial shipment and with the first shipment after a material safety data sheet is updated.

1. The distributor shall either provide material safety data sheets with the shipped containers, or send them to the other distributor or employer prior to or at the time of the shipment.

2. Retail distributors selling hazardous chemicals to employers having a commercial account shall provide a material safety data sheet to such employers upon request, and shall post a sign or otherwise inform them that a material safety data sheet is available.

3. Wholesale distributors selling hazardous chemicals to employers over the counter may also provide material safety data sheets upon the request of the employer at the time of the over-the-counter purchase, and shall post a sign or otherwise inform such employers that a material safety data sheet is available.

4. If an employer without a commercial account purchases a hazardous chemical from a retail distributor not required to have material safety data sheets on file (that is, the retail distributor does not have commercial accounts and does not use the materials), the

retail distributor shall provide the employer, upon request, with the name, address, and telephone number of the chemical manufacturer, importer, or distributor from which a material safety data sheet can be obtained.

5. Wholesale distributors shall also provide material safety data sheets to employers or other distributors upon request.

6. Chemical manufacturers, importers, and distributors need not provide material safety data sheets to retail distributors that have informed them that the retail distributor does not sell the product to commercial accounts or open the sealed container to use it in their own workplaces.

(h) The employer shall maintain in the workplace copies of the required material safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options.)

(i) Where employees must travel between workplaces during a work shift, that is, their work is carried out at more than one geographical location, the material safety data sheets may be kept at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

(j) Material safety data sheets may be kept in any form, including operating procedures, and may be designed to cover groups of hazardous chemicals in a work area where it may be more appropriate to address the hazards of a process rather than individual hazard chemicals. However, the employer shall ensure that in all cases the required information is provided for each hazardous chemical, and is readily accessible during each work shift to employees when they are in their work area(s).

(k) Material safety data sheets shall also be made readily available, upon request, to designated representatives and to the Director, in accordance with the requirements of 29 CFR §1910.1020(e). The Director shall also be given access to material safety data sheets in the same manner.

#### 12:100-7.8 Employee information and training

(a) Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. Refresher training, which shall be an abbreviated version of initial training, shall be conducted every two years. Employers shall ensure that all employees participate in a training program that must be provided at no cost to the employee and during working hours. Information and training may be designed to cover categories of hazards (for example, flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels, hazardous substance fact sheets, and material safety data sheets.

(b) Employees shall be informed of:

1. The requirements of this section;

2. Any operations in their work area where hazardous chemicals are present;

3. The location and availability of the written hazard communication program, including the list(s) of hazardous chemicals required by the hazard communication program, hazardous substance fact sheets, the Right to Know Survey, the Right to Know Hazardous Substance List, and material safety data sheets required by this section; and

4. The applicable provisions of the Worker and Community Right to Know Act, N.J.S.A. 34:5A-1 et seq.

(c) Employee training shall include at least:

1. Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring



devices, visual appearance or odor of hazardous chemicals when being released, etc.);

2. The physical and health hazards of the chemicals in the work area;

3. The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used;

4. The details of the hazard communication program developed by the employer, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information;

5. Information about the applicable provisions of the Worker and Community Right to Know Act, N.J.S.A. 34:5A-1 et seq., which shall include an explanation of the Right to Know Survey, labeling, hazardous substance fact sheets, the Right to Know Hazardous Substance List, and the Right to Know poster, and how employees can obtain these documents and use appropriate hazard information from these sources; and

6. A copy of the Right to Know brochure. When refresher training is given, the Right to Know brochure shall be distributed to all employees.

(d) An employer shall use a technically qualified person to conduct its training session.

(e) Training records shall include the following information:

1. The dates of the training sessions;
2. The contents or a summary of the training sessions;
3. The names and qualifications of persons conducting the training; and

4. The names and job titles of all persons attending the training sessions.

(f) Training records shall be maintained for the duration of the employee's employment.

(g) Training records shall be available as follows:

1. The employer shall ensure that all training records required to be maintained by this standard shall be made available upon request to the Commissioner of Labor or the Commissioner of Health and Senior Services for examination and copying.

2. Employee training records required by this standard shall be provided upon request for examination and copying to employees, to employee representatives, to the Commissioner of Labor, and to the Commissioner of Health and Senior Services.

(h) Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

#### 12:100-7.9 Trade secrets

(a) The chemical manufacturer, importer, or employer may withhold the specific chemical identity, including the chemical name and other specific identification of a hazardous chemical, from the material safety data sheet, provided that:

1. The claim that the information withheld is a trade secret can be supported;

2. Information contained in the material safety data sheet concerning the properties and effects of the hazardous chemical is disclosed;

3. The material safety data sheet indicates that the specific chemical identity is being withheld as a trade secret; and

4. The specific chemical identity is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of this section.

(b) Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity of a hazardous chemical is necessary for emergency or first-aid treatment, the chemical manufacturer, importer, or employer shall immediately disclose the specific chemical identity of a trade secret chemical to that treating physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement. The chemical manufacturer, importer, or employer may require a written statement of need and confidentiality agreement,

in accordance with the provisions of (c) and (d) below, as soon as circumstances permit.

(c) In non-emergency situations, a chemical manufacturer, importer, or employer shall, upon request, disclose a specific chemical identity, otherwise permitted to be withheld under (a) above, to a health professional (that is, physician, industrial hygienist, toxicologist, epidemiologist, or occupational health nurse) providing medical or other occupational health services to exposed employee(s), and to employees or designated representatives, if:

1. The request is in writing;

2. The request describes with reasonable detail one or more of the following occupational health needs for the information:

i. To assess the hazards of the chemicals to which employees will be exposed;

ii. To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels;

iii. To conduct pre-assignment or periodic medical surveillance of exposed employees;

iv. To provide medical treatment to exposed employees;

v. To select or assess appropriate personal protective equipment for exposed employees;

vi. To design or assess engineering controls or other protective measures for exposed employees; and

vii. To conduct studies to determine the health effects of exposure.

3. The request explains in detail why the disclosure of the specific chemical identity is essential and that, in lieu thereof, the disclosure of the following information to the health professional, employee, or designated representative, would not satisfy the purposes described in (c)2 above:

i. The properties and effects of the chemical;

ii. Measures for controlling workers' exposure to the chemical;

iii. Methods of monitoring and analyzing worker exposure to the chemical; and

iv. Methods of diagnosing and treating harmful exposures to the chemical;

4. The request includes a description of the procedures to be used to maintain the confidentiality of the disclosed information; and

5. The health professional, and the employer or contractor of the services of the health professional (that is, downstream employer, labor organization, or individual employee), employee, or designated representative, agree in a written confidentiality agreement that the health professional, employee, or designated representative, will not use the trade secret information for any purpose other than the health need(s) asserted and agree not to release the information under any circumstances other than to the U.S. Occupational Safety and Health Administration, as provided in (f) below, except as authorized by the terms of the agreement or by the chemical manufacturer, importer, or employer.

(d) The confidentiality agreement authorized by (c)4 above:

1. May restrict the use of the information to the health purposes indicated in the written statement of need;

2. May provide for appropriate legal remedies in the event of a breach of the agreement, including stipulation of a reasonable pre-estimate of likely damages; and

3. May not include requirements for the posting of a penalty bond.

(e) Nothing in this subchapter is meant to preclude the parties from pursuing non-contractual remedies to the extent permitted by law.

(f) If the health professional, employee, or designated representative receiving the trade secret information decides that there is a need to disclose it to OSHA, the chemical manufacturer, importer, or employer who provided the information shall be informed by the health professional, employee, or designated representative prior to, or at the same time as, such disclosure.

(g) If the chemical manufacturer, importer, or employer denies a written request for disclosure of a specific chemical identity, the denial must:

1. Be provided to the health professional, employee, or designated representative, within 30 days of the request;



2. Be in writing;
3. Include evidence to support the claim that the specific chemical identity is a trade secret;
4. State the specific reasons why the request is being denied; and
5. Explain in detail how alternative information may satisfy the specific medical or occupational health need without revealing the specific chemical identity.

(h) The health professional, employee, or designated representative whose request for information is denied under (c) above may refer the request and the written denial of the request to the Commissioner of Labor and/or Commissioner of Health and Senior Services for consideration.

(i) When a health professional, employee, or designated representative refers the denial to the Commissioner of Labor and/or the Commissioner of Health and Senior Services under (h) above, New Jersey Public Employees Occupational Safety and Health shall consider the evidence to determine if:

1. The chemical manufacturer, importer, or employer has supported the claim that the specific chemical identity is a trade secret;

2. The health professional, employee, or designated representative has supported the claim that there is a medical or occupational health need for the information; and

3. The health professional, employee or designated representative has demonstrated adequate means to protect the confidentiality.

(j) If the Commissioner of Labor and/or the Commissioner of Health and Senior Services determines that the specific chemical identity requested under (c) above is not a "bona fide" trade secret, or that it is a trade secret, but the requesting health professional, employee, or designated representative has a legitimate medical or occupational health need for the information, has executed a written confidentiality agreement, and has shown adequate means to protect the confidentiality of the information, the chemical manufacturer, importer, or employer will be subject to citation by the Commissioner of Labor.

(k) If a chemical manufacturer, importer, or employer demonstrates to the Commissioner of Labor and/or the Commissioner of Health and Senior Services that the execution of a confidentiality agreement would not provide sufficient protection against the potential harm from the unauthorized disclosure of a trade secret specific chemical identity, the Commissioner of Labor and/or the Commissioner of Health and Senior Services may issue such orders or impose such additional limitations or conditions upon the disclosure of the requested chemical information as may be appropriate to assure that the occupational health services are provided without an undue risk of harm to the chemical manufacturer, importer, or employer.

(l) If a citation for a failure to release specific chemical identity information is contested by the chemical manufacturer, importer, or employer, the matter will be adjudicated before the Occupational Safety and Health Review Commission in accordance with the Act's enforcement scheme and the applicable Commission rules of the procedure. In accordance with the Commission rules, when a chemical manufacturer, importer, or employer continues to withhold the information during the contest, the Administrative Law Judge may review the citation and supporting documentation "in camera" or issue appropriate orders to protect the confidentiality of such matters.

(m) Notwithstanding the existence of a trade secret claim, a chemical manufacturer, importer, or employer shall, upon request, disclose to the Commissioner of Labor and/or the Commissioner of Health and Senior Services any information which this subchapter requires the chemical manufacturer, importer, or employer to make available. Where there is a trade secret claim, such claim shall be made no later than at the time the information is provided to the Commissioner of Labor and/or the Commissioner of Health and Senior Services so that suitable determinations of trade secret status can be made and the necessary protections can be implemented.

(n) Nothing in this section shall be construed as requiring the disclosure under any circumstances of process or percentage of mixture information, which is a trade secret.

## APPENDIX A

### Health Hazard Definitions (Mandatory)

Although safety hazards related to the physical characteristics of a chemical can be objectively defined in terms of testing requirements (for example, flammability), health hazard definitions are less precise and more subjective. Health hazards may cause measurable changes in the body—such as decreased pulmonary function. These changes are generally indicated by the occurrence of signs and symptoms in the exposed employees such as shortness of breath, a nonmeasurable, subjective feeling. Employees exposed to such hazards must be apprised of both the change in body function and the signs and symptoms that may occur to signal that change.

The determination of occupational health hazards is complicated by the fact that many of the effects or signs and symptoms occur commonly in non-occupationally-exposed populations, so that effects of exposure are difficult to separate from normally occurring illnesses. Occasionally, a substance causes an effect that is rarely seen in the population at large, such as angiosarcomas caused by vinyl chloride exposure, thus making it easier to ascertain that the occupational exposure was the primary causative factor. More often, however, the effects are common, such as lung cancer. The situation is further complicated by the fact that most chemicals have not been adequately tested to determine their health hazard potential, and data do not exist to substantiate these effects.

There have been many attempts to categorize effects and to define them in various ways. Generally, the terms "acute" and "chronic" are used to delineate between effects on the basis of severity or duration. "Acute" effects usually occur rapidly as a result of short-term exposure, and are of short duration. "Chronic" effects generally occur as a result of long-term exposure, and are of long duration.

The acute effects referred to most frequently are those defined by the American National Standards Institute (ANSI) standard for Precautionary Labeling of Hazardous Industrial Chemicals (Z129.1-1988)—irritation, corrosivity, sensitization and lethal dose. Although these are important health effects, they do not adequately cover the considerable range of acute effects, which may occur as a result of occupational exposure, such as, for example, narcosis.

Similarly, the term chronic effect is often used to cover only carcinogenicity, teratogenicity, and mutagenicity. These effects are obviously a concern in the workplace, but again, do not adequately cover the area of chronic effects, excluding, for example, blood dyscrasias (such as anemia), chronic bronchitis and liver atrophy.

The goal of defining precisely, in measurable terms, every possible health effect that may occur in the workplace as a result of chemical exposures cannot realistically be accomplished. This does not negate the need for employees to be informed of such effects and protected from them. Appendix B, which is also mandatory, outlines the principles and procedures of hazard assessment.

For purposes of this section, any chemicals, which meet any of the following definitions, as determined by the criteria set forth in Appendix B are health hazards. However, this is not intended to be an exclusive categorization scheme. If there are available scientific data that involve other animal species or test methods, they must also be evaluated to determine the applicability of the Hazard Communication Standard.

1. Carcinogen: A chemical is considered to be a carcinogen if:

- (a) It has been evaluated by the International Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen; or

- (b) It is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP); or

- (c) It is regulated by OSHA as a carcinogen.



2. Corrosive: A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. For example, a chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described by the United States Department of Transportation in Appendix A to 49 CFR 173, it destroys or changes irreversibly the structure of the tissue at the site of contact following an exposure period of four hours. This term shall not refer to action on inanimate surfaces.

3. Highly toxic: A chemical falling within any of the following categories:

(a) A chemical that has a median lethal dose (LD<sub>50</sub>) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A chemical that has a median lethal dose (LD<sub>50</sub>) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

(c) A chemical that has a median lethal concentration (LC<sub>50</sub>) in air of 200 parts per million by volume or less of gas or vapor, or two milligrams per liter or less of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

4. Irritant: A chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. A chemical is a skin irritant if, when tested on the intact skin of albino rabbits by the methods of 16 CFR 1500.41 for four hours exposure or by other appropriate techniques, it results in an empirical score of five or more. A chemical is an eye irritant if so determined under the procedure listed in 16 CFR 1500.42 or other appropriate techniques.

5. Sensitizer: A chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

6. Toxic: A chemical falling within any of the following categories:

(a) A chemical that has a median lethal dose (LD<sub>50</sub>) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A chemical that has a median lethal dose (LD<sub>50</sub>) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

(c) A chemical that has a median lethal concentration (LC<sub>50</sub>) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than two milligrams per liter but not more than 20 milligrams per liter of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

7. Target Organ Effects: The following is a target organ categorization of effects, which may occur, including examples of signs and symptoms and chemicals, which have been found to cause such effects. These examples are presented to illustrate the range and diversity of effects and hazards found in the workplace, and the broad scope employers must consider in this area, but are not intended to be all-inclusive.

(a) Hepatotoxins: Chemicals which produce liver damage.

Signs and Symptoms: Jaundice; liver enlargement.

Chemicals: Carbon tetrachloride; nitrosamines.

(b) Nephrotoxins: Chemicals which produce kidney damage.

Signs and Symptoms: Edema; proteinuria.

Chemicals: Halogenated hydrocarbons; uranium.

(c) Neurotoxins: Chemicals, which produce their primary toxic effects on the nervous system.

Signs and Symptoms: Narcosis; behavioral changes; decrease in motor functions.

Chemicals: Mercury; carbon disulfide.

(d) Agents, which act on the blood or hemato-poietic system: Decrease hemoglobin function; deprive the body tissues of oxygen.

Signs and Symptoms: Cyanosis; loss of consciousness.

Chemicals: Carbon monoxide; cyanides.

(e) Agents which damage the lung: Chemicals which irritate or damage pulmonary tissue.

Signs and Symptoms: Cough; tightness in chest; shortness of breath.

Chemicals: Silica; asbestos.

(f) Reproductive toxins: Chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis).

Signs and Symptoms: Birth defects; sterility.

Chemicals: Lead; DBCP.

(g) Cutaneous hazards: Chemicals which affect the dermal layer of the body.

Signs and Symptoms: Defatting of the skin; rashes; irritation.

Chemicals: Ketones; chlorinated compounds.

(h) Eye hazards: Chemicals which affect the eye or visual capacity.

Signs and Symptoms: Conjunctivitis; corneal damage.

Chemicals: Organic solvents; acids.

## APPENDIX B

### Hazard Determination (Mandatory)

The quality of a hazard communication program is largely dependent upon the adequacy and accuracy of the hazard determination. The hazard determination requirement of this standard is performance-oriented. Chemical manufacturers, importers, and employers evaluating chemicals are not required to follow any specific methods for determining hazards, but they must be able to demonstrate that they have adequately ascertained the hazards of the chemicals produced or imported in accordance with the criteria set forth in this Appendix.

Hazard evaluation is a process, which relies heavily on the professional judgment of the evaluator, particularly in the area of chronic hazards. The performance-orientation of the hazard determination does not diminish the duty of the chemical manufacturer, importer or employer to conduct a thorough evaluation, examining all relevant data and producing a scientifically defensible evaluation. For purposes of this standard, the following criteria shall be used in making hazard determinations that meet the requirements of this standard.

1. Carcinogenicity: As described in N.J.A.C. 12:100-7.4(d) and subchapter Appendix A, a determination by the National Toxicology Program, the International Agency for Research on Cancer, or OSHA that a chemical is a carcinogen or potential carcinogen will be considered conclusive evidence for purposes of this section. In addition, however, all available scientific data on carcinogenicity must be evaluated in accordance with the provisions of this Appendix and the requirements of this subchapter.

2. Human data: Where available, epidemiological studies and case reports of adverse health effects shall be considered in the evaluation.

3. Animal data: Human evidence of health effects in exposed populations is generally not available for the majority of chemicals produced or used in the workplace. Therefore, the available results of toxicological testing in animal populations shall be used to predict the health effects that may be experienced by exposed workers. In particular, the definitions of certain acute hazards refer to specific animal testing results (see Appendix A).

4. Adequacy and reporting of data: The results of any studies which are designed and conducted according to established scientific principles, and which report statistically significant conclusions regarding the health effects of a chemical, shall be a sufficient basis for a hazard determination and reported on any material safety data



sheet. In vitro studies alone generally do not form the basis for a definitive finding of hazard under the Hazard Communication Standard since they have a positive or negative result rather than a statistically significant finding.

The chemical manufacturer, importer, or employer may also report the results of other scientifically valid studies, which tend to refute the findings of hazard.

## APPENDIX C

### (RESERVED)

## APPENDIX D

### Definition of Trade Secret (Mandatory)

The following is a reprint of the "Restatement of Torts," Section 757, comment b (1939):

**Definition of trade secret.** A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives the individual an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers. It differs from other secret information in a business (see §759 of the Restatement of Torts which is not included in this Appendix) in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or other terms of a secret bid for a contract or the salary of certain employees, or the security investments made or contemplated, or the date fixed for the announcement of a new policy or for bringing out a new model or the like. A trade secret is a process or device for continuous use in the operations of the business. Generally it relates to the production of goods, as, for example, a machine or formula for the production of an article. It may, however, relate to the sale of goods or to other operations in the business, such as a code for determining discounts, rebates or other concessions in a price list or a catalogue, or a list of specialized customers, or a method of bookkeeping or other office management.

**Secrecy.** The subject matter of a trade secret must be secret. Matters of public knowledge or of general knowledge in an industry cannot be appropriated by one as one's own secret. Neither can matters which are completely disclosed by the goods which one markets be imputed as one's own secret. Substantially, a trade secret is known only in the particular business in which it is used. It is not requisite that only the proprietor of the business knows it. The individual may, without losing his protection, communicate it to employees involved in its use. The individual may likewise communicate it to others pledged to secrecy. Others may also know of it independently, as, for example, when they have discovered the process or formula by independent invention and are keeping it secret. Nevertheless, a substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring the information. An exact definition of a trade secret is not possible. Some factors to be considered in determining whether given information is one's trade secret are: (1) The extent to which the information is known outside of the individual's business; (2) the extent to which it is known by employees and others involved in the individual's business; (3) the extent of measures taken by the individual to guard the secrecy of the information; (4) the value of the information to the individual and the individual's competitors; (5) the amount of effort or money expended by the individual in developing the information; and (6) the ease of difficulty with which the information could be properly acquired or duplicated by others.

**Novelty and prior art.** A trade secret may be a device or process, which is patentable; but it need not be that. It may be a device or process, which is clearly anticipated in the prior art or one, which is merely a mechanical improvement that a good mechanic can make. Novelty and invention are not requisite for a trade secret as they are for patent-ability. These requirements are essential to patentability

because a patent protects against licensed use of the patented device or process even by one who discovers it properly through independent research. The patent monopoly is a reward to the inventor. But such is not the case with a trade secret. Its protection is not based on a policy of rewarding or otherwise encouraging the development of secret processes or devices. The protection is merely against breach of faith and reprehensible means of learning another's secret. For this limited protection it is not appropriate to require also the kind of novelty and invention, which is a requisite of patentability. The nature of the secret is, however, an important factor in determining the kind of relief that is appropriate against one who is subject to liability under the rule stated in this section. Thus, if the secret consists of a device or process which is a novel invention, one who acquires the secret wrongfully is ordinarily enjoined from further use of it and is required to account for the profits derived from the individual's past use. If, on the other hand, the secret consists of mechanical improvements that a good mechanic can make without resorting to the secret, the wrongdoer's liability may be limited to damages, and an injunction against future use of the improvements made with the aid of the secret may be inappropriate.

## APPENDIX E

### Guidelines for Employer Compliance (Advisory)

The Hazard Communication Standard (HCS) is based on a simple concept—that employees have both a need and a right to know the hazards and identities of the chemicals they are exposed to when working. They also need to know what protective measures are available to prevent adverse effects from occurring. The HCS is designed to provide employees with the information they need.

Knowledge acquired under the HCS will help employers provide safer workplaces for their employees. When employers have information about the chemicals being used, they can take steps to reduce exposures, substitute less hazardous materials, and establish proper work practices. These efforts will help prevent the occurrence of work-related illnesses and injuries caused by chemicals.

The HCS addresses the issues of evaluating and communicating hazards to workers. Evaluation of chemical hazards involves a number of technical concepts, and is a process that requires the professional judgment of experienced experts. That is why the HCS is designed so that employers who simply use chemicals, rather than produce or import them, are not required to evaluate the hazards of those chemicals. Hazard determination is the responsibility of the producers and importers of the materials. Producers and importers of chemicals are then required to provide the hazard information to employers that purchase their products.

Employers that do not produce or import chemicals need only focus on those parts of the subchapter that deal with establishing a workplace program and communicating information to their workers. This Appendix is a general guide for such employers to help them determine what is required under the subchapter. It does not supplant or substitute for the regulatory provisions, but rather provides a simplified outline of the steps an average employer would follow to meet those requirements.

#### 1. Becoming Familiar With The Subchapter.

The HCS requires information to be prepared and transmitted regarding all hazardous chemicals. The HCS covers both physical hazards (such as flammability), and health hazards (such as irritation, lung damage, and cancer). Most chemicals used in the workplace have some hazard potential, and thus will be covered by the subchapter.

One difference between this subchapter and many others adopted by OSHA is that this one is performance-oriented. That means that you have the flexibility to adapt the subchapter to the needs of your workplace, rather than having to follow specific, rigid requirements. It also means that you have to exercise more judgment to implement an appropriate and effective program.



The standard's design is simple. Chemical manufacturers and importers must evaluate the hazards of the chemicals they produce or import. Using that information, they must then prepare labels for containers, and more detailed technical bulletins called Material Safety Data Sheets (MSDS).

Chemical manufacturers, importers, and distributors of hazardous chemicals are all required to provide the appropriate labels and material safety data sheets to the employers to which they ship the chemicals. The information is to be provided automatically. Every container of hazardous chemicals you receive must be labeled, tagged, or marked with the required information. Your suppliers must also send you a properly completed material safety data sheet (MSDS) at the time of the first shipment of the chemical, and with the next shipment after the MSDS is updated with new and significant information about the hazards.

You can rely on the information received from your suppliers. You have no independent duty to analyze the chemical or evaluate the hazards of it.

Employers that "use" hazardous chemicals must have a program to ensure the information is provided to exposed employees. "Use" means to package, handle, react, or transfer. This is an intentionally broad scope, and includes any situation where a chemical is present in such a way that employees may be exposed under normal conditions of use or in a foreseeable emergency.

The requirements of the subchapter that deal specifically with the hazard communication program are found in N.J.A.C. 12:100-7.5, Written hazard communication program; 7.6, Labels and other forms of warning; 7.7, Material safety data sheets; and 7.8, Employee information and training. The requirements of these sections should be the focus of your attention. Concentrate on becoming familiar with them, using N.J.A.C. 12:100-7.2, Scope and application, and 7.3, Definitions, as references when needed to help explain the provisions.

There are two types of work operations where the coverage of the rule is limited. These are laboratories and operations where chemicals are only handled in sealed containers (for example, a warehouse). The limited provisions for these workplaces can be found in N.J.A.C. 12:100-7.2, Scope and application. Basically, employers having these types of work operations need only keep labels on containers as they are received; maintain material safety data sheets that are received, and give employees access to them; and provide information and training for employees. Employers do not have to have a written hazard communication program and lists of chemicals for these types of operations.

The limited coverage of laboratories and sealed container operations addresses the obligation of an employer to the workers in the operations involved, and does not affect the employer's duties as a distributor of chemicals. For example, a distributor may have warehouse operations where employees would be protected under the limited sealed container provisions. In this situation, requirements for obtaining and maintaining MSDSs are limited to providing access to those received with containers while the substance is in the workplace, and requesting MSDSs when employees request access for those not received with the containers. However, as a distributor of hazardous chemicals, that employer will still have responsibilities for providing MSDSs to downstream customers at the time of the first shipment and when the MSDS is updated. Therefore, although they may not be required for the employees in the work operation, the distributor may, nevertheless, have to have MSDSs to satisfy other requirements of the rule.

## 2. Identify Responsible Staff.

Hazard communication is going to be a continuing program in your facility. Compliance with the HCS is not a "one shot deal." In order to have a successful program, it will be necessary to assign responsibility for both the initial and ongoing activities that have to be undertaken to comply with the rule. In some cases, these activities may already be part of current job assignments. For example, site supervisors are frequently responsible for on-the-job training sessions. Early identification of the responsible employees, and involvement of them in the development of your plan of action, will

result in a more effective program design. Evaluation of the effectiveness of your program will also be enhanced by involvement of affected employees.

For any safety and health program, success depends on commitment at every level of the organization. This is particularly true for hazard communication, where success requires a change in behavior. This will only occur if employers understand the program, and are committed to its success, and if employees are motivated by the people presenting the information to them.

## 3. Identify Hazardous Chemicals in the Workplace.

The standard requires a list of hazardous chemicals in the workplace as part of the written hazard communication program. The list will eventually serve as an inventory of everything for which an MSDS must be maintained. At this point, however, preparing the list will help you complete the rest of the program since it will give you some idea of the scope of the program required for compliance in your facility.

The best way to prepare a comprehensive list is to survey the workplace. Purchasing records may also help, and certainly employers should establish procedures to ensure that in the future purchasing procedures result in MSDSs being received before a material is used in the workplace.

The broadest possible perspective should be taken when doing the survey. Sometimes people think of "chemicals" as being only liquids in containers. The HCS covers chemicals in all physical forms—liquids, solids, gases, vapors, fumes, and mists—whether they are "contained" or not. The hazardous nature of the chemical and the potential for exposure are the factors, which determine whether a chemical is covered. If it is not hazardous, it is not covered. If there is no potential for exposure (for example, the chemical is inextricably bound and cannot be released), the rule does not cover the chemical.

Look around. Identify chemicals in containers, including pipes, but also think about chemicals generated in the work operations. For example, welding fumes, dusts, and exhaust fumes are all sources of chemical exposures. Read labels provided by suppliers for hazard information. Make a list of all chemicals in the workplace that are potentially hazardous. For your own information and planning, you may also want to note on the list the location(s) of the products within the workplace, and an indication of the hazards as found on the label. This will help you as you prepare the rest of your program.

N.J.A.C. 12:100-7.2, Scope and application, includes exemptions for various chemicals or workplace situations. After compiling the complete list of chemicals, you should review N.J.A.C. 12:100-7.2 to determine if any of the items can be eliminated from the list because they are exempted materials. For example, food, drugs, and cosmetics brought into the workplace for employee consumption are exempt. So rubbing alcohol in the first aid kit would not be covered.

Once you have compiled as complete a list as possible of the potentially hazardous chemicals in the workplace, the next step is to determine if you have received material safety data sheets for all of them. Check your files against the inventory you have just compiled. If any are missing, contact your supplier and request one. It is a good idea to document these requests, either by copy of a letter or a note regarding telephone conversations. If you have MSDSs for chemicals that are not on your list, figure out why. Maybe you do not use the chemical anymore. Or maybe you missed it in your survey. Some suppliers do provide MSDSs for products that are not hazardous. These do not have to be maintained by you.

You should not allow employees to use any chemicals for which you have not received an MSDS. The MSDS provides information you need to ensure proper protective measures are implemented prior to exposure.

## 4. Preparing and Implementing a Hazard Communication Program.

All workplaces where employees are exposed to hazardous chemicals must have a written plan, which describes how the standard will be implemented in that facility. Preparation of a plan is not just a paper exercise—all of the elements must be implemented in the workplace in order to be in compliance with the



subchapter. See N.J.A.C. 12:100-7.5 for the specific requirements regarding a written hazard communication program. The only work operations which do not have to comply with the written plan requirements are laboratories and work operations where employees only handle chemicals in sealed containers. See N.J.A.C. 12:100-7.2, Scope and application, for the specific requirements for these two types of workplaces.

The plan does not have to be lengthy or complicated. It is intended to be a blueprint for implementation of your program—an assurance that all aspects of the requirements have been addressed.

Many trade associations and other professional groups have provided sample programs and other assistance materials to affected employers. These have been very helpful to many employers since they tend to be tailored to the particular industry involved. You may wish to investigate whether your industry trade groups have developed such materials.

Although such general guidance may be helpful, you must remember that the written program has to reflect what you are doing in your workplace. Therefore, if you use a generic program, it must be adapted to address the facility it covers. For example, the written plan must list the chemicals present at the site, indicate who is to be responsible for the various aspects of the program in your facility, and indicate where written materials will be made available to employees.

If the Department of Labor and/or the Department of Health and Senior Services inspects your workplace for compliance with the HCS, the compliance officer will ask to see your written plan at the outset of the inspection. In general, the following items will be considered in evaluating your program.

The written program must describe how the requirements for labels and other forms of warning, material safety data sheets, and employee information and training, are going to be met in your facility. The following discussion provides the type of information compliance officers will be looking for to decide whether these elements of the hazard communication program have been properly addressed:

#### A. Labels and Other Forms of Warning.

In-plant containers of hazardous chemicals must be labeled, tagged, or marked with the identity of the material and appropriate hazard warnings. Chemical manufacturers, importers, and distributors are required to ensure that every container of hazardous chemicals they ship is appropriately labeled with such information and with the name and address of the producer or other responsible party. Employers purchasing chemicals can rely on the labels provided by their suppliers. If the material is subsequently transferred by the employer from a labeled container to another container, the employer will have to label that container unless it is subject to the portable container exemption. See N.J.A.C. 12:100-7.6 for specific labeling requirements.

The primary information to be obtained from an OSHA-required label is an identity for the material, and appropriate hazard warnings. The identity is any term, which appears on the label, the MSDS, and the list of chemicals, and thus links these three sources of information. The identity used by the supplier may be a common or trade name ("Black Magic Formula"), or a chemical name (1,1,1-trichloroethane). The hazard warning is a brief statement of the hazardous effects of the chemical ("flammable, causes lung damage"). Labels frequently contain other information, such as precautionary measures ("do not use near open flame"), but this information is provided voluntarily and is not required by the subchapter. Labels must be legible, and prominently displayed. There are no specific requirements for size or color, or any specified text.

With these requirements in mind, the compliance officer will be looking for the following types of information to ensure that labeling will be properly implemented in your facility:

1. Designation of person(s) responsible for ensuring labeling of in-plant containers;
2. Designation of person(s) responsible for ensuring labeling of any shipped containers;

#### 3. Description of labeling system(s) used;

#### 4. Description of written alternatives to labeling of in-plant containers (if used); and

#### 5. Procedures to review and update label information when necessary.

Employers that are purchasing and using hazardous chemicals—rather than producing or distributing them—will primarily be concerned with ensuring that every purchased container is labeled. If materials are transferred into other containers, the employer must ensure that these are labeled as well, unless they fall under the portable container exemption (N.J.A.C. 12:100-7.6). In terms of labeling systems, you can simply choose to use the labels provided by your suppliers on the containers. These will generally be verbal text labels, and do not usually include numerical rating systems or symbols that require special training. The most important thing to remember is that this is a continuing duty—all in-plant containers of hazardous chemicals must always be labeled. Therefore, it is important to designate someone to be responsible for ensuring that the labels are maintained as required on the containers in your facility, and that newly purchased materials are checked for labels prior to use.

#### B. Material Safety Data Sheets.

Chemical manufacturers and importers are required to obtain or develop a material safety data sheet (MSDS) for each hazardous chemical they produce or import. Distributors are responsible for ensuring that their customers are provided a copy of these MSDSs. Employers must have an MSDS for each hazardous chemical, which they use. Employers may rely on the information received from their suppliers. The specific requirements for material safety data sheets are in N.J.A.C. 12:100-7.7. There is no specified format for the MSDS under the rule, although there are specific information requirements. OSHA has developed a nonmandatory format, OSHA Form 174, which may be used by chemical manufacturers and importers to comply with the rule. The MSDS must be in English. You are entitled to receive from your supplier a data sheet that includes all of the information required under the rule. If you do not receive one automatically, you should request one. If you receive one that is obviously inadequate, with, for example, blank spaces that are not completed, you should request an appropriately completed one. If your request for a data sheet or for a corrected data sheet does not produce the information needed, you should contact the Department of Labor and/or the Department of Health and Senior Services for assistance in obtaining the MSDS.

The role of MSDSs under the subchapter is to provide detailed information on each hazardous chemical, including its potential hazardous effects, its physical and chemical characteristics, and recommendations for appropriate protective measures. This information should be useful to you as the employer responsible for designing protective programs, as well as to the workers. If you are not familiar with material safety data sheets and with chemical terminology, you may need to learn to use them yourself. A glossary of MSDS terms may be helpful in this regard. Generally speaking, most employers using hazardous chemicals will primarily be concerned with MSDS information regarding hazardous effects and recommended protective measures. Focus on the sections of the MSDS that are applicable to your situation.

MSDSs must be readily accessible to employees when they are in their work areas during their work shifts. This may be accomplished in many different ways. You must decide what is appropriate for your particular workplace. Some employers keep the MSDSs in a binder in a central location (for example, in the pick-up truck on a construction site). Others, particularly in workplaces with large numbers of chemicals, computerize the information and provide access through terminals. As long as employees can get the information when they need it, any approach may be used. The employees must have access to the MSDSs themselves—simply having a system where the information can be read to them over the phone is only permitted under the mobile worksite provision, N.J.A.C. 12:100-7.7(i), when employees must travel between workplaces during the shift. In this situation, they have access to the



MSDSs prior to leaving the primary worksite, and when they return, so the telephone system is simply an emergency arrangement.

In order to ensure that you have a current MSDS for each chemical in the plant as required, and that employee access is provided, the compliance officers will be looking for the following types of information in your written program:

1. Designation of person(s) responsible for obtaining and maintaining the MSDSs;

2. How such sheets are to be maintained in the workplace (for example, in notebooks in the work area(s) or in a computer with terminal access), and how employees can obtain access to them when they are in their work area during the work shift;

3. Procedures to follow when the MSDS is not received at the time of the first shipment;

4. For producers, procedures to update the MSDS when new and significant health information is found; and

5. Description of alternatives to actual data sheets in the workplace, if used.

For employers using hazardous chemicals, the most important aspect of the written program in terms of MSDSs is to ensure that someone is responsible for obtaining and maintaining the MSDSs for every hazardous chemical in the workplace. The list of hazardous chemicals required to be maintained as part of the written program will serve as an inventory. As new chemicals are purchased, the list should be updated. Many companies have found it convenient to include on their purchase orders the name and address of the person designated in their company to receive MSDSs.

#### C. Employee Information and Training.

Each employee who may be "exposed" to hazardous chemicals when working must be provided information and trained prior to initial assignment to work with a hazardous chemical, and whenever the hazard changes. See N.J.A.C. 12:100-7.8 for specific requirements. Information and training may be done either by individual chemical, or by categories of hazards (such as flammability or carcinogenicity). If there are only a few chemicals in the workplace, then you may want to discuss each one individually. Where there are large numbers of chemicals, or the chemicals change frequently, you will probably want to train generally based on the hazard categories (for example, flammable liquids, corrosive materials, carcinogens). Employees will have access to the substance-specific information on the labels and MSDSs.

Information and training is a critical part of the hazard communication program. Information regarding hazards and protective measures are provided to workers through written labels and material safety data sheets. However, through effective information and training, workers will learn to read and understand such information, determine how it can be obtained and used in their own workplaces, and understand the risks of exposure to the chemicals in their workplaces as well as the ways to protect themselves. A properly conducted training program will ensure comprehensive and understanding. It is not sufficient to either just read material to the workers, or simply hand them material to read. You want to create a climate where workers feel free to ask questions. This will help you to ensure that the information is understood. You must always remember that the underlying purpose of the HCS is to reduce the incidence of chemical source illnesses and injuries. This will be accomplished by modifying behavior through the provision of hazard information and information about protective measures. If your program works, you and your workers will better understand the chemical hazards within the workplace. The procedures you establish regarding, for example, purchasing, storage, and handling of these chemicals will improve, and thereby reduce the risks posed to employees exposed to the chemical hazards involved. Furthermore, your workers' comprehension will also be increased, and proper work practices will be followed in your workplace.

If you are going to do the training yourself, you will have to understand the material and be prepared to motivate the workers to learn. This is not always an easy task, but the benefits are worth the effort. More information regarding appropriate training can be

found in OSHA Publication No. 2254 which contains voluntary training guidelines prepared by OSHA's Training Institute. A copy of this document is available from OSHA's Publications Office at (202) 219-4667. In reviewing your written program with regard to information and training, the following items need to be considered:

1. Designation of person(s) responsible for conducting training;

2. Format of the program to be used (audiovisuals, classroom instruction, etc.);

3. Elements of the training program (should be consistent with the elements in N.J.A.C. 12:100-7.8); and

4. Procedure to train new employees at the time of their initial assignment to work with a hazardous chemical, and to train employees when a new hazard is introduced into the workplace.

The written program should provide enough details about the employer's plans in this area to assess whether or not a good faith effort is being made to train employees. The Department of Labor and/or the Department of Health and Senior Services does not expect that every worker will be able to recite all of the information about each chemical in the workplace. In general, the most important aspects of training under the HCS are to ensure that employees are aware that they are exposed to hazardous chemicals, that they know how to read and use labels and material safety data sheets, and that, as a consequence of learning this information, they are following the appropriate protective measures established by the employer. PEOSH compliance officers will be talking to employees to determine if they have received training, if they know they were exposed to hazardous chemicals, and if they know where to obtain substance-specific information on labels and MSDSs.

If you already have a training program, you may simply have to supplement it with whatever additional information is required under the HCS. For example, construction employers that are already in compliance with the construction training standard (29 CFR §1926.21) will have little extra training to do.

An employer can provide employees information and training through whatever means are found appropriate and protective. Although there would always have to be some training on-site (such as informing employees of the location and availability of the written program and MSDSs), employee training may be satisfied in part by general training about the requirements of the HCS and about chemical hazards on the job which is provided by, for example, trade associations, unions, colleges, and professional schools. In addition, previous training, education and experience of a worker may relieve the employer of some of the burdens of informing and training that worker. Regardless of the method relied upon, however, the employer is always ultimately responsible for ensuring that employees are adequately trained. If the compliance officer finds that the training is deficient, the employer will be cited for the deficiency regardless of who actually provided the training on behalf of the employer.

#### D. Other Requirements

In addition to these items, compliance officers will also be asking the following questions in assessing the adequacy of the program:

Does a list of the hazardous chemicals exist in each work area or at a central location?

Are methods the employer will use to inform employees of the hazards of nonroutine tasks outlined?

Are employees informed of the hazards associated with chemicals contained in unlabeled pipes in their work areas?

On multi-employer work sites, has the employer provided other employers with information about labeling systems and precautionary measures where the other employers have employees exposed to the initial employer's chemicals?

Is the written program made available to employees and their designated representatives?

If your program adequately addresses the means of communicating information to employees in your workplace, and provides answers to the basic questions outlined above, it will be found to be in compliance with the rule.

#### 5. Checklist for Compliance.



The following checklist will help to ensure you are in compliance with the rules:

- Read and understood the requirements. \_\_\_\_\_
- Assigned responsibility for tasks. \_\_\_\_\_
- Prepared an inventory of chemicals. \_\_\_\_\_
- Ensured containers are labeled. \_\_\_\_\_
- Obtained MSDSs for each chemical. \_\_\_\_\_
- Prepared written program. \_\_\_\_\_
- Made MSDSs available to workers. \_\_\_\_\_
- Conducted training of workers. \_\_\_\_\_
- Established procedures to maintain current program. \_\_\_\_\_
- Established procedures to evaluate effectiveness. \_\_\_\_\_

#### 6. Further Assistance.

If you have a question regarding compliance with the Hazard Communication Standard, you should contact:

New Jersey Department of Health and Senior Services  
Public Employees Occupational Safety and Health Program  
PO Box 360

Trenton, New Jersey 08625-0360

(609) 984-1863

Fax: (609) 984-2779

([www.state.nj.us/health/coh/peoshweb](http://www.state.nj.us/health/coh/peoshweb))

e-mail: [peosh@doh.state.nj.us](mailto:peosh@doh.state.nj.us)

Or

New Jersey Department of Labor  
Division of Public Safety and Occupational Safety and Health  
PO Box 386

Trenton, New Jersey 08625-0386

(609) 292-7036

([www.state.nj.us/labor/issue/peosh.html](http://www.state.nj.us/labor/issue/peosh.html))

Free consultation services are also available to assist employers, and information regarding these services can be obtained by contacting the programs listed above.

### SUBCHAPTER 10. STANDARDS FOR FIREFIGHTERS

#### 12:100-10.1 Scope; standards information

(a) This subchapter shall apply to all public employment as provided below:

1. [Standards for personal protective equipment, respiratory protective equipment and other requirements for the fire service (both career and volunteer).] This subchapter contains requirements for the organization, training, and personal protective equipment of fire service organizations whenever an employer establishes them.

2. The requirements of this subchapter shall apply to all fire service members in the public sector performing structural fire fighting.

(b)-(c) (No change.)

#### 12:100-10.2 Definitions

(a) The following words and terms, when used in this subchapter, shall have the following meaning unless the context clearly indicates otherwise.

["Career firefighter" means any person who has his or her primary employment as a firefighter, who ordinarily works at that employment at least 20 hours per week and who is enrolled as a firefighter in a public retirement system.

"Career fire service" means a fire department or fire brigade, which is composed of persons who have chosen firefighting, or related duties as their occupation in paid, part paid fire departments or fire districts.]

"Enclosed structure" means a structure with a roof or ceiling and at least two [adjacent] walls which may present [fire] hazards to employees, such as accumulations of smoke, toxic gases and heat, similar to those found in buildings.

"Fire department" means an organized group of employees organized by [the] a public employer who are knowledgeable, trained and skilled in basic firefighting operations.

["Volunteer firefighter" means any person other than a career firefighter who serves as a firefighter in a public or private firefighting agency or organization.

"Volunteer fire service" means a fire department or brigade composed of persons who provide their services without compensation in the public interest.]

#### 12:100-10.3 Organization, training and education

(a)-(b) (No change.)

(c) Training and education requirements are as follows:

1. The employer shall provide training and education for all fire service members commensurate with those duties and functions that fire service members are expected to perform. Such training and education shall be provided to fire service members before they perform fire service emergency activities. Fire service leaders and training instructors shall be provided with training and education, which is more comprehensive than that provided to the general membership of the fire service.

2. The employer shall assure that training and education is conducted frequently enough to assure that each member of the fire service is able to perform the member's assigned duties and functions satisfactorily and in a safe manner so as not to endanger fire service members or others. All fire service members shall be provided with training at least annually. In addition, fire service members who are expected to perform interior structural fire fighting shall be provided with an education session or training at least quarterly.

3. The quality of the training and education program for fire service members shall be similar to those conducted by such fire training schools as the Maryland Fire and Rescue Institute; Iowa Fire Service Extension; West Virginia Fire Service Extension; Georgia Fire Academy; New York State Department, Fire Prevention and Control; Louisiana State University Firemen Training Program, or Washington State's Fire Service Training Commission for Vocational Education. (For example, for the oil refinery industry with its unique hazards, the training and education program for those fire service members shall be similar to those conducted by Texas A & M University, Reno Fire School, or the Delaware State Fire School.)

4. The employer shall inform fire service members about special hazards such as storage and use of flammable liquids and gases, toxic chemicals, radioactive sources and water reactive substances to which they may be exposed during fire and other emergencies. The fire service members shall also be advised of any changes that occur in relation to the special hazards. The employer shall develop and make available for inspection by fire service members written procedures that describe the actions to be taken in situations involving the special hazards and shall include these in the training and education program.

5. The employer shall provide each member of the fire service training in HAZMAT Operations Level I, Bloodborne Pathogens, Incident Management System Training Orientation (I-100), and where applicable, Confined Space Entry Rescue Operations, Trench Rescue Operations and High Angle and Technical Rescue Techniques. All training shall be consistent with the applicable PEOSH Standard.



6. The employer shall comply with the Hazard Communications Standard, N.J.A.C. 12:100-7, and relevant parts of the New Jersey Worker and Community Right to Know Act.

#### 12:100-10.4 Personnel; limitations on ability to perform

(a) The employer shall assure that employees who are expected to do interior structural firefighting are physically capable of performing duties, which may be assigned to them during emergencies.

1. Prior to appointment as a structural firefighter, all individuals shall have successfully passed a medical evaluation, which meets the Medical Evaluation Protocol required under the Respiratory Protection Program Standard, 29 CFR 1910.134. Failure to pass said examination shall exclude the individual from serving as a structural firefighter.

(b) (No change.)

#### 12:100-10.5 Protective clothing

(a) (No change.)

(b) Firefighters performing interior structural firefighting and overhaul shall be provided with, and required to wear, the equipment covered in this subchapter.

(c) The employer shall assure that:

1. (No change.)

2. Protective clothing ordered or purchased after the effective date of this subchapter shall comply with this subchapter; and

3. [Career firefighters] Firefighters wear foot, leg and body protective clothing complying with this subchapter.

[4. Volunteer firefighters wear foot, leg and body protective clothing complying with this subchapter except that existing foot, leg and body protection meeting the previous OSHA standards that are superseded by this subchapter may continue to be worn until either they become unserviceable or replaced.]

#### 12:100-10.6 Protective clothing; foot and leg protection

(a) Foot and leg protection shall comply with this section for all [career] firefighters, and as replacement of existing foot and leg protection is required for the volunteer firefighters].

1. (No change.)

2. The use of three quarter length boots may continue for volunteer firefighters until replacement of the boots is necessary. At time of replacement, bunker pants and bunker boots as required by NFPA 1974-1987 must be purchased.]

#### 12:100-10.7 Protective clothing; body protection

(a) Body protection shall comply with this section for [the career] all firefighters, and as replacement is required for the volunteer firefighters].

(b) Body protection shall be achieved by the wearing of a fire resistive coat and bunker pants, both of which shall be at least equivalent to NFPA 1971-1986, Protective Clothing for Structural Firefighting, incorporated herein by reference. For career firefighters, body protection must be worn in combination with a station/work uniform or apparel complying with (c) below. If the employer issues or requires the wearing of uniforms for volunteer firefighters, the uniform must comply with (c) below.

(c) (No change.)

#### 12:100-10.9 Protective clothing; head, eye and face protection

(a) (No change.)

(b) Full facemasks, helmets, goggles or hoods of breathing apparatus which comply with 29 CFR 1910.134 and N.J.A.C. 12:100-10.10 shall be deemed to comply with (a) above.

(c) A full protective hood shall be provided for the firefighter that meets the performance, construction, and testing requirements of NFPA 1971-1991, Protective Clothing for Structural Fire Fighting.

1. Firefighters shall be provided with a full protective hood [December 7, 1999,] provided that if the wearing of the hood interferes with the proper fit of the helmet, a full protective hood need not be provided until the helmet becomes unserviceable and is replaced.

#### 12:100-10.10 Respiratory protection devices

(a)-(c) (No change.)

(d) The employer shall establish and maintain a respiratory protection program, which includes:

1. Negative-pressure self-contained breathing apparatus with a rated service life of more than two hours and which has a minimum protection factor of 5,000, as determined by an acceptable quantitative fit test performed on each individual, shall be acceptable for use only during those situations for which the employer demonstrates that long duration breathing apparatus is necessary.

i. Quantitative fit test procedures shall be available for inspection by the Commissioner of Health and Senior Services.

ii. Negative-pressure breathing apparatus shall continue to be acceptable for 18 months after a positive-pressure breathing apparatus with the same or longer rated service life is certified by the National Institute of Occupational Safety and Health (NIOSH). After this 18-month period, all self-contained breathing apparatus used for these long duration situations shall be of the positive-pressure type.

2. The requirements of 29 CFR 1910.134, Respiratory Protection, with amendments published in the Federal Registry through April 23, 1998 and any subsequent amendments thereto, are incorporated and adopted herein by reference as standards applicable to firefighters for respiratory protection.

(e) Existing respirators meeting the previous OSHA standards that are superseded by this subchapter:

1. May be used with approved cylinders from other approved self-contained breathing apparatus provided that such cylinders are of the same capacity and pressure rating. All compressed air cylinders used with self-contained breathing apparatus shall meet the [criteria of 49 CFR Parts 100 through 199 and 30 CFR Parts 11, 12, 13, 14 and 14a;] United States Department of Transportation (49 CFR Parts 100 through 199) and National Institute for Occupational Safety and Health (42 CFR Part 84) criteria.

2. (No change.)

#### 12:100-10.13 Hearing protection

(a)-(c) (No change.)

(d) The provisions of 29 CFR 1910.95, Occupational Noise Exposure, incorporated at N.J.A.C. 12:100-5.2(a)6, Subpart G, Occupational Health and Environment Control, is]4 are applicable to this subchapter.

#### 12:100-10.16 Maintenance of firefighter equipment

(a) Firefighting equipment required under this subchapter [that is in damaged] shall be maintained and inspected by the employer at least annually to ensure the safe operational condition of the equipment. Damaged equipment or equipment found to be in unserviceable condition shall be removed from service and replaced.

(b) All fire department aerial apparatus is to be subject to visual inspection, operational tests and load tests at least annually in accordance with NFPA 1914-1991, Testing Fire Department Aerial Devices. Complete inspections and tests including, the non-destructive testing defined in NFPA 1914-1991, Testing Fire Department Aerial Devices, shall be conducted whenever visual inspection or load testing indicates a potential problem or at least every five years. Any device that fails a test shall be immediately removed from service and shall not be returned to service until properly repaired and retested. In addition, pumper fire apparatus shall be inspected at least annually in accordance with criteria of NFPA 1901-1991; initial attack fire apparatus shall be inspected at least annually in accordance with criteria of NFPA 1902-1991; and mobile water supply fire apparatus shall be inspected at least annually in accordance with criteria of NFPA 1983-1991. Each inspection shall include road-worthiness and safety equipment.



**SUBCHAPTER 17. STANDARDS AND PUBLICATIONS  
REFERRED TO IN THIS CHAPTER**

**12:100-17.1 Documents referred to by reference**

(a) The full title and edition of each of the standards or publications referred to in this chapter are as follows:

[1. ANSI Z9.2-1979, Design and Operation of Local Exhaust Systems;]

1. ACGHI, Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment (2003 Edition);

2.-4 (No change.)

5. IARC, International Agency for Research on Cancer Monographs;

Recodify existing 5.-19. as 6.-20. (No change in text.)

[20.]21. N.J.S.A. 34:6A-25 et seq., New Jersey Public Employees Occupational Safety and Health Act; [and]

[21.]22. N.J.S.A. 34:13A-1 et seq., Employer-Employee Relations Act[.]; and

23. NTP, National Toxicology Program Annual Report on Carcinogens (10th Edition).

**12:100-17.3 Availability of documents from issuing organization**

Copies of the standards and publications referred to in this chapter may be obtained from the organizations listed below. The abbreviations preceding these standards and publications have the following meaning, and are the organizations issuing the standards and publications listed in N.J.A.C. 12:100-17.1:

**ACGIH** American Conference of Governmental Industrial Hygienists  
1330 Kemper Meadow Drive  
Cincinnati, OH 45240

**ANSI** American National Standards Institute  
[1430 Broadway] 25 West 43rd Street  
New York, New York [10018] 10036

**CFR** Code of Federal Regulations  
Copies available from:  
Superintendent of Documents  
Government Printing Office  
Washington, DC 20402

or

U.S. Government Printing Office  
Government Book Store  
Robert Morris Building  
100 North 17th Street  
Philadelphia, PA  
Phone: (215) 636-1900

**CGA** Compressed Gas Association Inc.  
1235 Jefferson Davis Highway, Suite 509  
Arlington, VA 22202

**IARC** International Agency for Research on Cancer  
World Health Organization  
150 Cours Albert Thomas  
69372 Lyon CEDEX08  
France

**NFPA** National Fire Protection Association  
Batterymarch Park  
Quincy, MA 02269

**NIOSH** National Institute of Occupational Safety and Health  
Division of Technical Services  
Cincinnati, Ohio 45226

**NJAC** New Jersey Administrative Code  
Copies available from:  
Office of Public Employee Safety  
N.J. Department of Labor  
PO Box 386  
Trenton, NJ 08625-0386

**NJSA** New Jersey Statutes Annotated  
Copies available from:  
Public Safety and Occupational Safety and Health  
New Jersey Department of Labor  
PO Box 386  
Trenton, NJ 08625-0386

**NTP** National Toxicology Program  
US Department of Health and Human Services  
National Institutes of Health Sciences  
Research Triangle Park, NC 27709